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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,695	08/20/2003	Thomas H. Turpen	60-008703US	9296
22798	7590	10/12/2005	EXAMINER	
QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C.			FOX, DAVID T	
P O BOX 458			ART UNIT	
ALAMEDA, CA 94501			PAPER NUMBER	
			1638	
DATE MAILED: 10/12/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/645,695	Applicant(s) TURPEN ET AL.	
	Examiner David T. Fox	Art Unit 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11 and 14-23 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 14-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/18/03;5/23/05</u> | 6) <input checked="" type="checkbox"/> Other: <u>IDS of 6/6/05</u> |

PD

Applicant's election without traverse of Group II in the reply filed on 18 July 2005 is acknowledged.

The specification is objected to on page 3, line 22, where the description of Figure 3 does not correspond to the actual number of sub-figures. This objection may be overcome by replacement of "Figure 3." on page 3, line 22 with the following:

---Figures 3A-1, 3A-2, 3B-1, 3B-2, 3C-1, 3C-2 and 3C-3.---

Note that all amendments to the specification should comply with 37 CFR 1.121(b).

The effective filing date for the instantly claimed invention, namely plants or viruses comprising a fusion protein comprising at least four heterologous amino acids ligated to the coat protein of a plus-sense single-stranded RNA plant virus, is 17 February 1989, the filing date of parent application number 07/310,881, which was the first parent application to disclose such a concept.

Claims 22-23 are objected to for depending upon non-elected claim 11.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 is indefinite in its recitation of "plant or plant cell comprising the fusion protein" as it is unclear whether the plant also comprises the fusion protein. If intended, insertion of --- , each--- after "cell" would obviate this rejection.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

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unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 22-23 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 8-9, 11 and 16 of U.S. Patent No. 5,977,438. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art to utilize the polynucleotide encoding a fusion protein comprising at least four heterologous amino acids ligated to the coat protein of a single-stranded plus-sense RNA plant virus, as well as the viruses, plant cells and plants comprising it, as claimed in the patent; to obtain the instantly claimed viruses, plant cells and plants comprising a fusion protein comprising at least four heterologous amino acids ligated to the coat protein of a single-stranded plus-sense RNA plant virus. The expression of the polynucleotide claimed in the patent would result in the instantly claimed fusion protein.

Claims 22-23 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 8 and 10 of U.S. Patent No. 6,660,500. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in

the art to utilize the method of expressing a fusion protein by introducing into a plant cell a polynucleotide encoding a fusion protein comprising at least four heterologous amino acids ligated to the coat protein of a single-stranded plus-sense RNA plant virus, wherein the polynucleotide may be part of a viral genome, as claimed in the patent; to obtain the instantly claimed viruses, plant cells and plants comprising a fusion protein comprising at least four heterologous amino acids ligated to the coat protein of a single-stranded plus-sense RNA plant virus. The instantly claimed products are the direct result of the methods claimed in the patent.

Claim 22 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 17 of copending Application No. 09/057,016. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art to utilize the virus particle comprising a fusion protein of a Tobamovirus coat protein and a heterologous protein, as claimed in the copending application; to obtain the instantly claimed virus particle comprising a fusion protein of a coat protein of a single-stranded plus-sense RNA plant virus ligated to a heterologous polypeptide of at least four amino acids. Tobamoviruses are a type of single-stranded plus-sense RNA plant viruses. Choice of length of the heterologous peptide would have been the optimization of process parameters. The claims are coextensive.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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The claims are deemed free of the prior art, given the failure of the prior art to teach or reasonably suggest a polynucleotide encoding a fusion protein comprising at least four heterologous amino acids ligated to the coat protein of a plus-sense single-stranded RNA plant virus, plant material or virus particles comprising the polynucleotide, or plant material or viruses comprising the encoded fusion protein, as stated in the allowed parent applications above. Note also the Board Decision mailed 05 May 2004 in parent application number 07/057,016, which awarded priority of the claimed invention to Applicant.

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David T. Fox whose telephone number is 571-272-0795. The examiner can normally be reached on Monday through Friday from 10:30AM to 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jones, can be reached on 571-272-0745. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 2, 2005

DAVID T. FOX
PRIMARY EXAMINER
GROUP 180-1638

